

IOWA HIGHWAY RESEARCH BOARD

Minutes of December 12, 2002

Regular Board Members Present

J. Adam

J. Byg

R. Gould

L. Greimann

D. Julius

B. Keierleber

R. Krauel

M. Nahra

C. Van Buskirk

W. Weiss

Alternate Board Members Present

T. Fonkert for J. Weber

C. Marker for J. George

G. Miller for J. Selmer

J. Berger

L. Brehm

J. Ites

R. Schletzbaum

Board Members With No Representation

R. Ettema

K. Mahoney

Secretary

M. Dunn

Visitors

LaDon Jones

Bob Given

Clare Schroeder

Sara Buseman

Ed Engle

Sandra Larson

Ananto Prasetyo

Wallace Rippie

Jim Cable

Halil Ceylan

Steve Andrle

Dale Harrington

Omar Smadi

Duane Smith

Barker Lemar Engineering Consultants

Iowa Concrete Paving Association

Iowa Concrete Paving Association

Iowa Department of Transportation

Iowa Department of Transportation

Iowa Department of Transportation

Iowa Department of Transportation

Iowa Department of Transportation

Iowa State University

Iowa State University

Iowa State University/CTRE

Iowa State University/CTRE

Iowa State University/CTRE

Iowa State University/CTRE

The meeting was held in the Large Materials Conference Room at the Iowa Department of Transportation, Ames, Iowa. The meeting was called to order at 1:05 P.M. by Wade Weiss.

Agenda review/modification

- Dr. Jim Cable is added to the agenda, after item 2, to discuss issues with the TR-490, “Stringless Portland Cement Concrete Paving”, which was approved at the October 2002 meeting.
- Mark Dunn is added to the agenda, after Dr. Cable, to recognize members coming off the Board.

Approval of the minutes

- Mark Nahra moved to approve the minutes from the October 25, 2002 meeting with the correction in spelling of Christy Van Buskirk’s name on page three. Randy Krauel seconded. Carried with 13 yes, 0 no, and 0 abstaining.

Discussion, TR-490, “Stringless Portland Cement Concrete Paving”

- Dr. Jim Cable, Iowa State University, updated the Board on the progress with lining things up for the research regarding the Stringless PCC Paving project. After several meetings, it was decided that having Gomaco aid in equipment for this project was not an economical alternative.
- It was decided that the Washington County project will be let as a standard county road paving project, yet the plans will include a statement that if the successful bidder has Gomaco equipment, which is new enough and meets the criteria to which the sensors are compatible, that Washington County and the contractor will have the opportunity to negotiate an extra work order and go with the stringless paving if they both so choose.
- Delaware and Buchanan counties have also expressed an interest in using this type of paving. Dr. Cable has given them similar language that they can choose to insert into their project plans.
- Details of the potential research effort and all 3 counties’ projects will be described in a pre-bid conference to be held the first week of March (date to be announced).
- There will be no DOT/ISU contract signed until things line up for the actual work. The first project to have things come together will be involved in the research. If things do not line up, there will be no contract signed. Dr. Cable will keep Mark Dunn and the Board informed as things progress.
- Dr. Jaselskis and Dr. Cable are starting to negotiate with Trimble to see if there can be any competition started in this area.

Recognition of Board members ending their terms of service with IHRB

- Mark Dunn handed out the following Certificates of Appreciation to those present for their service on the IHRB:
 - Wade Weiss - January 1997 - December 2002
 - Randy Krauel - January 1989 - December 2002

Those recognized, and not present:

- Jim George - January 1996 - December 2002
- Jerry Weber - January 1999 - October 2002

Completion of term, and reappointed:

- John Adam - reappointed for another 3-year term
- Mark Dunn made the following announcement of the replacements for these retiring members that were known to date (assignments known since the meeting have been added):
 - Lyle Brehm replaces Wade Weiss - alternate Dennis Short, Hamilton County (alternate resolved after the meeting)
 - Charles Marker replaces Jim George - alternate TBA
 - Todd Fonkert replaces Jerry Weber - alternate Andrew Smith, Hancock County (both assignments resolved after the meeting)
 - Greg Parker replaces Randy Krauel - Jeff Krist, Council Bluffs as alternate

Selection of Chair and Vice-Chair for 2003

- Lowell Greimann nominated Rob Ettema to serve as IHRB Chair for 2003. Mark Nahra seconded. Carried with 13 yes, 0 no, and 0 abstaining.
- Randy Krauel nominated Greg Parker to serve as IHRB Vice-Chair for 2003. Roger Gould seconded. Carried with 13 yes, 0 no, and 0 abstaining.

Final Report, HR-330, "Evaluation of Recycled Rubber in Asphalt Cement Concrete - Field Testing"

- Ed Engle, Iowa DOT, reviewed the background, including the 1991 federal government requirements and UNI's portion of the research; the descriptions of the wet and dry processes; the project locations and brief information on each; the construction conclusions, the data on cracking and rutting for each location; the costs; and the conclusions of the completed research.
- The economic benefit of getting rid of old tires was discussed. In 1996 or 1997, it was thought that the most economic thing to do to dispose of used tires was to burn them for electricity or in cement plants. Some of the drawbacks in this research activity were that there was not an economical way to grind the tires and the processes for mixing were proprietary at the time. This could have changed in more recent years.
- One of the drawbacks of this process, which ties back to the economics of it, was the slow down of production rate to 150 - 180 tons/hour on a couple of these projects.
- Industry has also expressed a concern for this process in that the recycling of it could potentially give off a lot of black smoke.
- Arizona still uses the wet process.
- The use of rubber in the mixes was at varied amounts thought to range from about 10 to 15% by weight of the liquid.

- Mark Nahra moved to approve the final report. Glen Miller seconded. Carried with 13 yes, 0 no, and 0 abstaining.

Final Report TR-455, “Handbook of Simplified Practice for Traffic Studies”

- Duane Smith, Iowa State University/CTRE, gave an overview of the background, introduction, objectives, approach, steering committee, decision of “4 studies and a ‘program’”, chapter layout, communication techniques, illustration samples/examples, tables, data forms, flow charts, sample equations, mitigation measures, photos, and illustrations with photos of the handbook.
- There was discussion on how the handbook would be made available to cities and counties. It had been discussed to possibly have a hard copy or CD mailed to the counties and cities 5000+.
- It was explained that one task of this research remains unfinished until after distribution of the handbook. A survey will be completed within 3-4 months after distribution of the handbook to rate its success.
- Randy Krauel moved to approve the final report. Christy Van Buskirk seconded. Carried with 13 yes, 0 no, and 0 abstaining.

Annual Review of TR-468, “Technology Transfer Program for the Iowa Highway Research Board”

- Mark Dunn reviewed the activity of TR-468 for 2002. With the DOT’s purchase of a multiple CD burner, the expected cost of burning CD’s outside of the DOT has been removed. With this change, there are no additional funds being requested for 2003. The project will still remain in place to fund technology transfer workshops or training, preliminary literature searches, and other similar needs.

Review of proposal from final RFP from 1st solicitation for FY 02-03

Development of a Computer Program for On-Road Impoundment Structure Design

- One proposal, “*A Computer Program for On-Road Impoundment Structure Design*”, was received from Dr. LaDon Jones, Barker Lemar Engineering Consultants.
- Comments/Discussion:
 - Mark Dunn reported that through contact with Jeff Porter of NRCS, it was recently learned that the Missouri division of the NCRS had commissioned something very similar to this program objective already. There will be a version of the program, which will be available to him for review in December. After Mr. Porter has had time to review the program, a recommendation will be made on a direction for this request. LaDon Jones has been made aware of this information
- After Board discussion, Mark Nahra proposed to table this proposal until the Missouri information can be reviewed and a direction will be decided after that time. John Adam seconded. Carried with 13 yes, 0 no, and 0 abstaining.

Discussion on changes in required format for RFPs and proposals

- Mark Dunn reviewed some of the proposed changes to the required format for proposals and handed out a draft copy. The Board is being given time to review the written information. Any suggested changes should be sent to Mark Dunn prior to the next Board meeting. This will be discussed at the January meeting.
- Some of the changes to note:
 - Have a technical advisory committee at least partially assembled prior to sending an RFP and include that on the RFP.
 - Require the principal investigator to meet with the technical advisory committee at least quarterly to insure that the research stay on track with project objectives and time.
 - Request more information on implementation, how the research should be used in the end.
 - Include a more detailed description on what should be included in the staffing and budget areas of the proposals in terms of describing the support staff and how they are participating and providing to the project.
 - Ask for more of a description of DOT and other local jurisdictional involvement and what will be involved as far as testing for the project which was normally not be listed.

The Annual Report had been included in the Board packet as general information.

New Business

- ***Review of changes with the Drainage Law RFP***
 - Information had come into Mark Dunn's office a couple of days prior to the meeting affecting this RFP. The revised draft was handed out and changes reviewed.
 - Comments/Discussion:
 - It was requested that it might be helpful to have "frequently asked questions" on some of the separate topics, they may be compiled on handout type of sheets.
 - It was recommended to increase the estimated funding amount to \$50,000 - \$60,000.
 - It was recommended to add the aspect of "common law" in a circumstance of no Iowa law being in place.
 - With issues of wetlands being quite dynamic, it was suggested that the request for more specific details about the topic be pulled out so the work is not dated by the information. It will give longer life to the document.
 - The narrowed solicitation audience was again discussed. All recommendations of those who would be good to add to the solicitation group should be sent to Mark Dunn before the January 31, 2003 meeting.
 - Mark Dunn will visit with Darrell Burns, former Buena Vista County Engineer and Drainage Engineer, about the RFP with these changes and also about people who may be qualified and have an interest in being added to the solicitation list. The goal is to have it sent out within the next month to month and a half. Depending on the level of changes that could still be made to the RFP, it may be brought back to the January meeting or it may be mailed if changes are minor.

- ***Mark Dunn mentioned the research collaboration agreement that the DOT is looking at renewing among the 3 major universities in the state and that through that discussion, the possibility of having a representative added to the Board from University of Northern Iowa has also considered. This would include them more formally in the process.***

- Comments/Discussion:

- While UNI may have some areas in which they would be capable of completing quality research for the Board, UNI does not have civil engineering department like ISU and U of I. They also do not have a highway background.
 - UNI does have an industrial technology program that has approximately 60% of the faculty that are engineers and the Roadside Development area is another one which seems to relate to some of the topics that come through the IHRB as priorities.
 - Concern was expressed about adding more voting members to the Board that do not have a financial investment.
 - UNI's involvement was encouraged if a topic comes up that would fit their scope, but much of the work is out of their area of expertise.
 - If UNI is added, it was asked how a minimum threshold would be established to determine if other institutions, that would also have research capabilities, (i.e. Iowa Western with the land surveying program) could request representation also. This could set a precedent.
- Sandra Larson said that she appreciated the comments and discussion.

Wade Weiss adjourned the meeting.

Date of Next Meeting: THE NEXT MEETING WILL BE HELD FRIDAY, JANUARY 31, 2003 AT 9:00 A.M. IN THE LARGE MATERIALS CONFERENCE ROOM AT THE IOWA DOT, CENTRAL COMPLEX, IN AMES, IOWA.

Mark Dunn, IHRB Secretary